The North/Central Delta Salmon Out-migration Study is an experiment to track juvenile Sacramento Chinook salmon movement from the Sacramento River through the Sacramento-San Joaquin Delta. Many of these salmon smolts are presumed to pass into the Delta Cross Channel (DCC) and Georgiana Slough off of the Sacramento River, thus taking them out of the preferred migratory pathway down the Sacramento River towards the ocean (see Figure 1). To better understand operations influence on salmon out-migration and hydrodynamics, for this study the DCC control gates are operated for various releases of the salmon smolt during the study. The operations include an Open Operation, Closed Operation, Half Closed Operation, and a Night Closure Operation. The later two operations have not been tested prior to the study. 18 days into this study we have two operations under similar flow conditions; and they have revealed information we have not previously obtained about local hydrodynamic effects from these gate operations (Figure 2). The data tracking the salmon migration is not yet available.

The base case for the salmon study will be the open gate operation (planned for November 30, 2008 to December 13, 2008). This is a crucial component of the study needed to compare against the Night Closure Operation (November 14, 2008 to November 26, 2008). For a complete analysis of salmon out-migration during a gate operation, the gate operation must be consistent as the salmon pass through the Delta, in particular as they travel from the Sacramento River release location at Tower Bridge down to the lower boundary location at Pittsburgh. Current flow conditions may hinder this consistency with a forced DCC gate closure to help meet the minimum Rio Vista flow requirement.

Unfortunately, the hydrology this year is not enough to meet all needs. In the Delta, we are keenly aware of the water quality requirements, Rio Vista flow requirements and scientific research needs for studies such as the salmon out-migration study. Figure 3 displays Rio Vista flows and projected flows. We have an opportunity with this study, because of the low flow conditions, to answer questions of how the Delta Cross Channel operation can possibly improve Delta water quality while maintaining adequate protection of out-migrants during conflicting operational needs. We request your consideration of relaxing the Rio Vista flow requirement from December 1 to December 13, 2008, so that we may keep the DCC gates open and obtain data that operators and fishery agencies will use in the future to make informed decisions.

The U.S. Department of Interior recognized potential conflicts in a January 25, 2005 statement before the State Water Resources Control Board reviewing the 1995 Delta Water Quality Control Plan and provided the following recommendation:

"Interior therefore supports implementation of the Sacramento River at Rio Vista flow standards as part of the Delta's WQCP with the following recommendation; that such implementation of the Rio Vista flow standard would be sufficiently flexible to allow real-time changes to address competing needs between upstream and downstream fishery objectives. We propose that, when such conflicts arise, the Bureau of Reclamation, the

Department of Water Resources, the Fish & Wildlife Service, NOAA Fisheries, and the Department of Fish and Game, which already have regularly scheduled meetings regarding water operations and fishery management, address these competing needs and develop specific operational recommendations in response to the real-time situation."

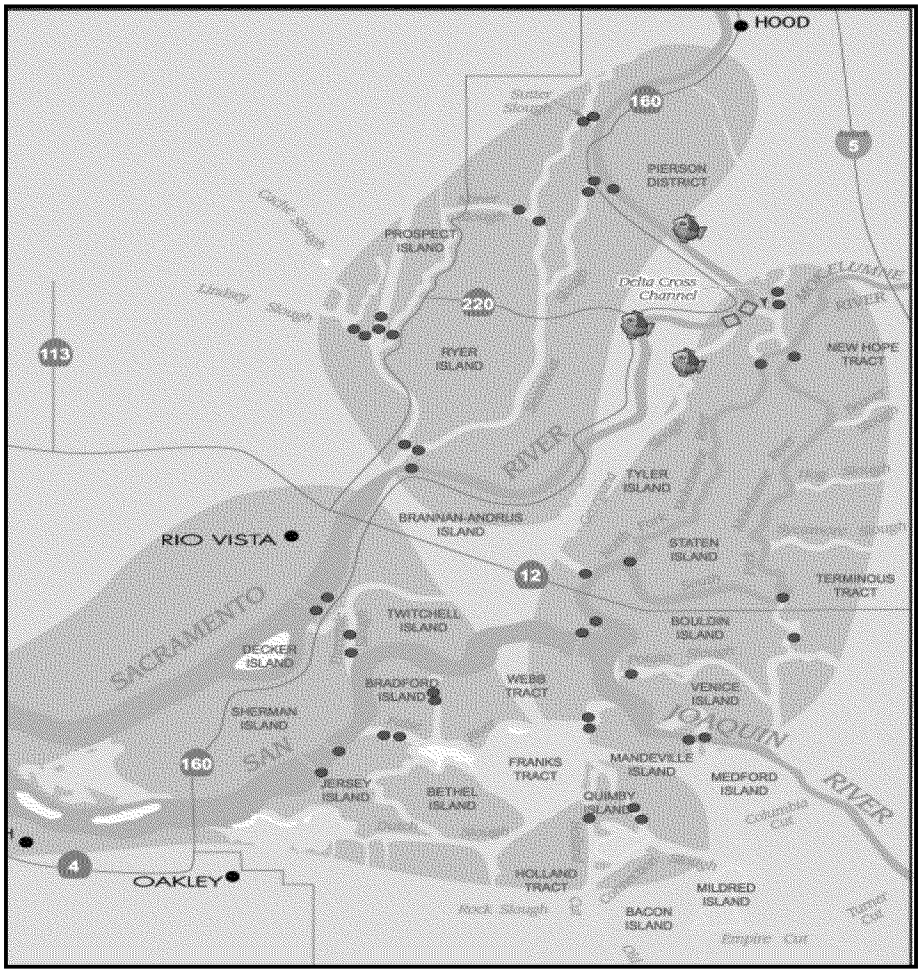

Figure 1. Sacramento Chinook Salmon Out-migration through the Delta towards the ocean. Also shown are monitoring station locations in the north and central Delta.

11/26/08
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Hydrodynamic Response to Delta Cross Channel Gate Re-Operation

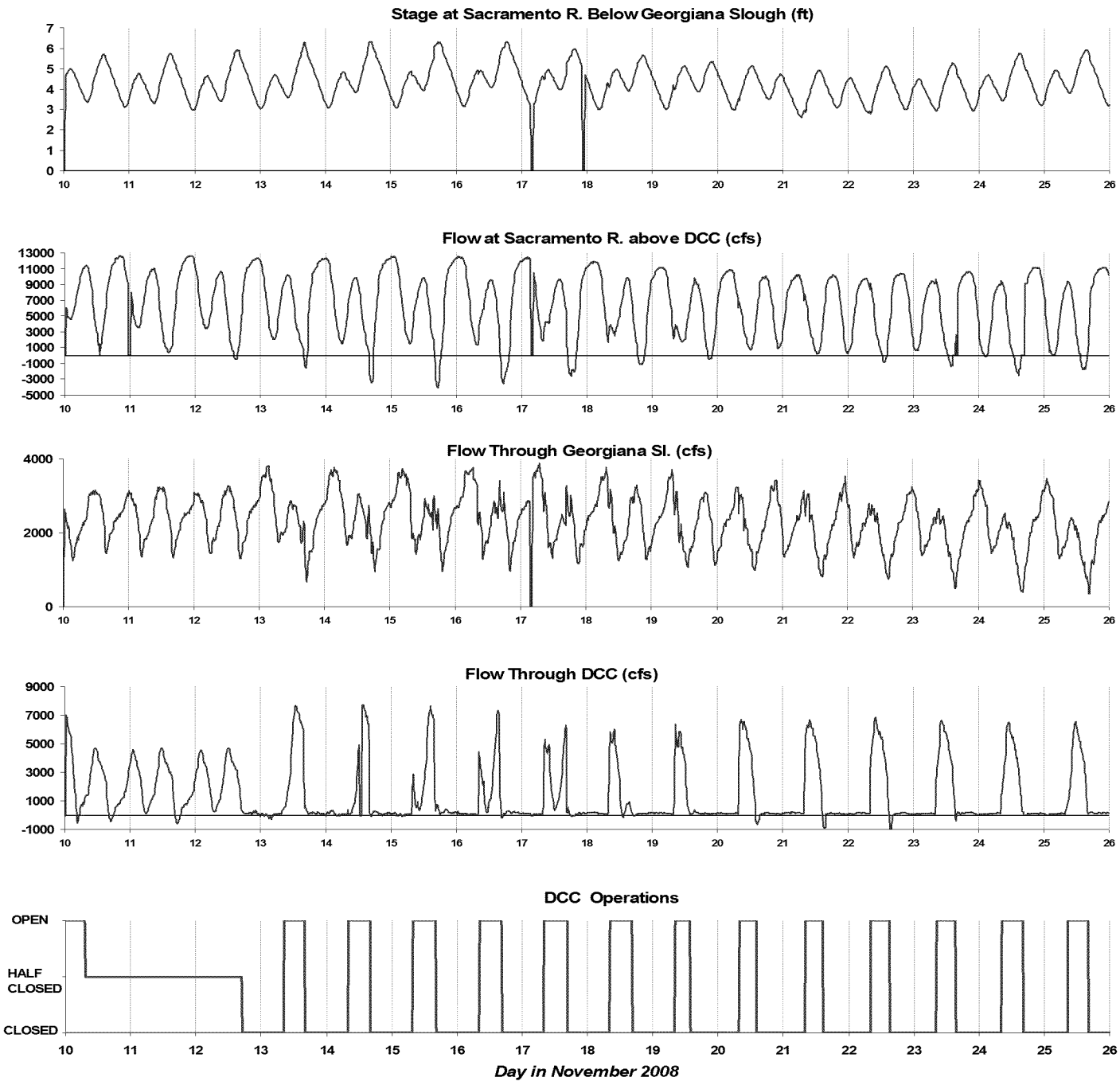

Figure 2. Hydrodynamic response at various locations to the DCC Operations. (15min data)

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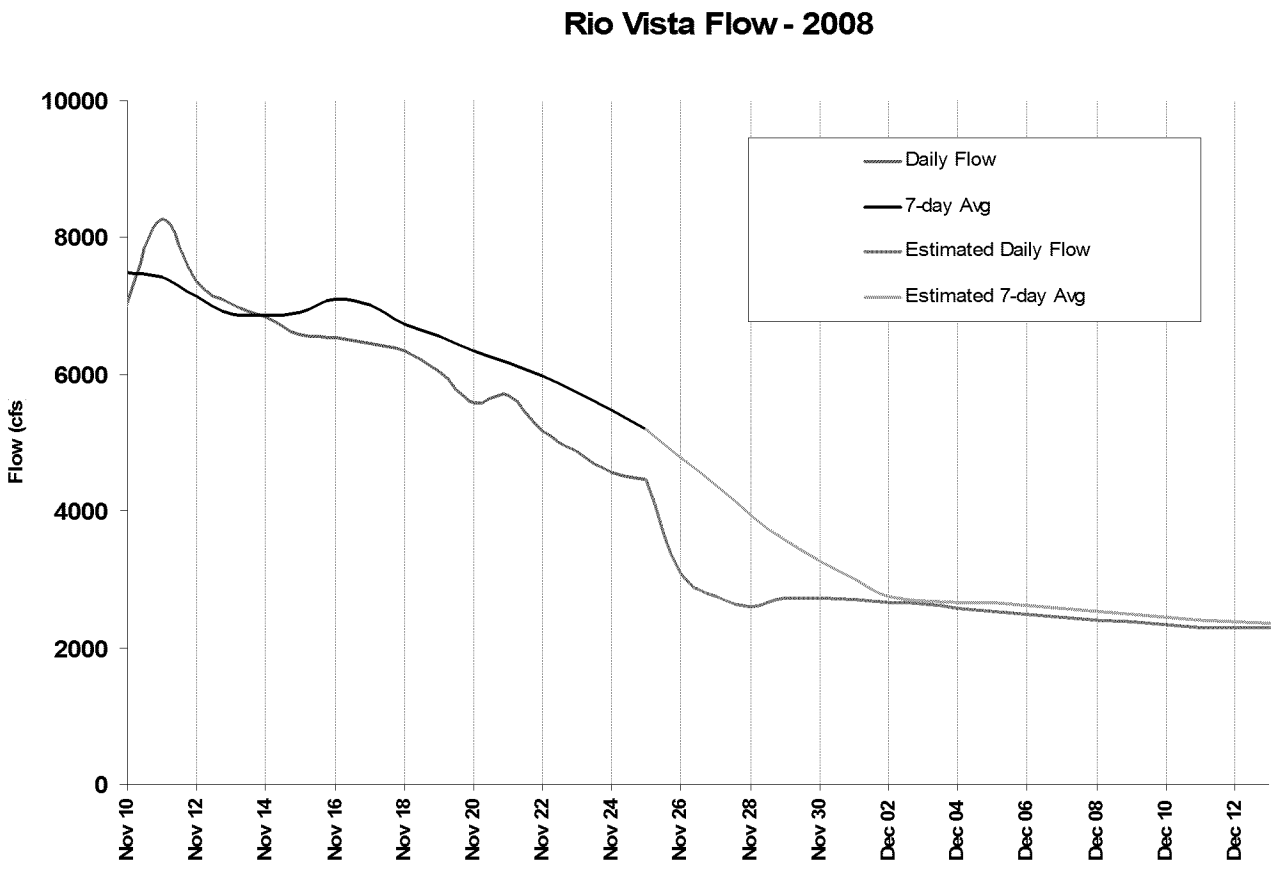

Figure 3. Rio Vista Flow – Recent historic and near term projected

11/26/08
Jim Wilde